

REMARKS

The Office Action of March 10, 1998, has been carefully considered.

It is noted that claims 1 and 2 are rejected under 35 U.S.C. 103(a) over the patent to Köbler, et al. in view of the patent to Fantoni, et al., the patent to Johnson, the patent to Tittgemeyer and in view of an acknowledgement of prior art under 35 U.S.C. 102(f) or (g).

Claim 3 is rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of the secondary references applied to claim 1, and further in view of the Fromson, et al. and the patent to Gerhardt.

Claim 4 is rejected under 35 U.S.C. 103(a) over the same references as claim 1.

Claim 5 is rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of the secondary references applied to claim 1, and further in view of the patent to Kühn, et al. and the patent to Morgan.

Claim 6 is rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of the secondary references applied to claim 1, and further in view of Kühn, et al. and Gerhardt.

Claim 7 is rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of the secondary references applied in claim 1, and further in view of Kühn, et al., the patent to Lewis and the patent to Berna, et al.

Claim 8 is rejected under 35 U.S.C. 103(a) over the same references applied to claim 1.

Claims 9-11 are rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of the secondary references applied to claim 8, and further in view of the patent to Dekumbis, et al.

Claims 12-13 are rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of Fantoni, et al., Johnson, Fromson, et al., Gerhardt, Tittgemeyer and acknowledgement of prior art under 35 U.S.C. 102(f) or (g).

Claims 14-15 are rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of Fantoni, et al., Kühn, et al., Morgan, Johnson, Tittgemeyer, and acknowledged prior art.

Claim 16 is rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of Johnson, Fantoni, et al., Kühn, et al., Tittgemeyer, Gerhardt and acknowledgement of prior art.

Claim 17 is rejected under 35 U.S.C. 103(a) over Köbler, et al. in view of Johnson, Fantoni, et al., the patent to Fadner, et al., Morgan, the patent to Jenkins, Tittgemeyer and acknowledgement of prior art under 35 U.S.C. 102(f) or (g).

In view of the Examiner's rejections of the claims applicants have amended claims 1, 8, 12, 14, 16 and 17.

It should be mentioned that the claims now on file specifically define a metal carrying sleeve for printing and transfer forms, and the process for producing such a metal carrying sleeve. The carrying sleeve consists essentially of a rectangular thin-walled flat metal sheet that is bent to a desired hollow cylindrical form and has a metal weld seam that permanently connects together the facing edges of the sheet so that the sheet is expandable and slidable onto a printing cylinder via pressurized air. The carrying sleeve further has a homogeneous, continuous and uniform outer cylindrical metal surface including the weld seam,

which surface is formed by processing the surface in the weld seam so that format variable continuous printing is possible or a layer structure is placeable on the outer circumferential surface including the weld seam.

It is respectfully submitted that the claims now on file differ essentially and in an unobvious, highly advantageous manner from the methods and constructions disclosed by the references.

Turning now to the references, applicants incorporate herein by reference the arguments presented in the previously filed amendments. The following remarks are additionally presented.

The sleeve-shaped offset printing form of Köbler, et al. can be used for channel-free printing (since the channel is filled with the weld seam), however, it cannot be used for endless or continuous printing since the weld seam is not processed so that it can be used for printing.

Furthermore, Köbler, et al. does not teach a welded sleeve which can be expanded by pressurized air so that the sleeve can be slid onto a printing cylinder.

Fantoni, et al. disclose a mechanical joint for joining together the ends of a printing plate. The adhesive or filler 8 is specifically indicated as being "destroyed or generally removed at the end of the printing process." (See column 4, lines 3-4 of Fantoni, et al.). Thus, if one were to utilize pressurized air to expand the carrier sleeve of Fantoni, et al. for sliding onto a cylinder, the connection between the ends of the printing plate 1 would be torn apart. The presently claimed invention, on the other hand, teaches a weld seam which connects together the ends of the plate so that the plate is expandable by pressurized air. Additionally,

Fantoni, et al. do not teach a weld seam that is part of the printing image, as in the presently claimed invention. The filler material 8 of Fantoni, et al. does not conform to the remaining photosensitive layer 5 and is only intended to prevent impact by the channel formed by the seam between the ends of the plate.

Thus, Fantoni, et al. provides no suggestion for modifying the teachings of Köbler, et al. Additionally, neither of these references teaches an endless jacket printing surface, as in the presently claimed invention.

Johnson discloses a cylindrical member having a cylinder 10 on which a plate 12 is brought as a sleeve and is welded to the cylinder by a weld connection 13. The edges 12^a of the sheet metal are bent into the groove 11. The welding material then connects together the edges and the outer surface of the cylinder 10 while simultaneously filling the groove 11. Thus, Johnson provides no teachings concerning a carrying sleeve or process for producing a carrying sleeve which is expandable by pressurized air, as taught by the presently claimed invention. There is nothing in the teachings of Johnson which would suggest that the weld seam of Johnson could be utilized for an expandable carrying sleeve, as in the presently claimed invention.

Furthermore, Johnson provides absolutely no teaching that the weld seam can be used as part of the printing surface (i.e., is printable).

The patent to Tittgemeyer discloses a method and apparatus for printing with a lithographic sleeve. Although Tittgemeyer teach the use of pressurized air, there is no teaching by this reference for a metal print carrying sleeve which is welded together so that it is expandable by pressurized air, as in the presently claimed invention. There is absolutely no suggestion of or teaching concerning such a cylinder or process.

The Examiner combined the above references in determining that claims 1 and 8 are unpatentable over such a combination. It is respectfully submitted that it is not obvious to combine the teachings of these various references since there is no suggestion by the references for making the combinations or modifications necessary to arrive at the presently claimed invention. There is nothing in the teachings of the references taken either alone or in combination which suggests a carrying sleeve and a process for producing the carrying sleeve in which the carrying sleeve consists of a thin walled flat metal sheet having facing edges that are welded together so that the sheet is expandable by pressurized air to allow sliding onto a printing cylinder. Furthermore, none of the references teach either alone or in combination the processing of the surface of the carrying sleeve and the weld seam so that continuous printing is possible over the entire outer surface of the carrying sleeve, including the weld seam, as in the presently claimed invention.

In view of these considerations, it is respectfully submitted that the rejection of claims 1, 2 and 8 under 35 U.S.C. 103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

As for the other references which were cited in combination with the references discussed above in rejecting the remaining claims, these have also been considered. Since they do not come close to the currently claimed subject matter than the references discussed above it is believed that any detailed comments thereon at this time would be superfluous.


In general, applicants respectfully submit that none of these other references relied upon by the Examiner teach the features discussed above or suggest modifying Köbler, et al. to

arrive at the presently claimed invention. Therefore, it is respectfully submitted that the rejections of claim 3-7 and 9-17 under 35 U.S.C. 103(a) are overcome and should be withdrawn. Reconsideration and allowance of the present application are respectfully requested.

Any additional fees or charges required at this time in connection with the application may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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